

TABLE 1

<u>Library</u>	<u>cDNAs</u>	<u>Description of Breast Tissue</u>	<u>Abundance</u>	<u>% Abundance</u>
BRSTTUP03	828	breast tumor, ductal, poorly differentiated, F, 3'CGAP	1	0.1208
BRSTDIT01	3394	breast, PF changes, mw/intraductal cancer, 48F	1	0.0295
BRSTNOT13	3859	breast, mw/neoplasm, 36F	1	0.0259
BRSTNOT27	3936	breast, mw/ductal adenoCA, intraductal CA, aw/node mets, 57F	1	0.0254
BRSTNOT18	3999	breast, PF breast disease, 57F	1	0.0250
BRSTNOT05	13198	breast, mw/lobular CA, 58F, m/BRSTTUT03	3	0.0227
BRSTNOT02	9074	breast, PF changes, mw/adenoCA, 55F, m/BRSTTUT01	1	0.0110
BRSTNOT07	10052	breast, PF changes, mw/adenoCA, intraductal CA, 43F	1	0.0099
BRSTNOT04	10308	breast, mw/ductal CA, CA in situ, aw/node mets, 62F	1	0.0097

TABLE 2

The BRSTTUP03 library was obtained from the Cancer Genome Anatomy Project (CGAP) (PD Name: NCI_CGAP_Br3). Starting RNA was made from poorly differentiated invasive ductal breast tumor tissue removed from an adult female.

The BRSTDIT01 library was constructed from diseased breast tissue removed from a 48-year-old Caucasian female during a local excision of breast lesion. Pathology indicated proliferative fibrocystic changes without atypia characterized by epithelial ductal hyperplasia, and microcalcifications. Pathology for the matched tumor tissue indicated intraductal cancer. The patient presented with a malignant neoplasm of the breast and unspecified breast symptoms.

The BRSTNOT13 library was constructed from breast tissue removed from the left medial lateral breast of a 36-year-old Caucasian female during bilateral simple mastectomy and total breast reconstruction. Pathology indicated benign breast tissue. Patient history included a breast neoplasm.

The BRSTNOT27 library was constructed from right breast tissue removed from a 57-year-old Caucasian female during a unilateral extended simple mastectomy. Pathology indicated benign fat replaced breast parenchyma. Pathology for the matched tumor tissue indicated residual microscopic infiltrating grade 3 ductal adenocarcinoma and extensive grade 2 intraductal carcinoma. Multiple (9 of 19) axillary lymph nodes were positive for metastatic adenocarcinoma with minimal extranodal extension. The largest nodal metastasis measured less than 1 cm in greatest dimension. Immunoperoxidase stains for estrogen and progesterone receptors were positive. Patient history included benign hypertension, hyperlipidemia, cardiac dysrhythmia, a benign colon neoplasm, a solitary breast cyst, and a breast neoplasm of uncertain behavior.

The BRSTNOT18 library was constructed from diseased breast tissue removed from a 57-year-old Caucasian female during a unilateral simple extended mastectomy. Pathology indicated a biopsy cavity in the upper outer quadrant of the right breast. No residual tumor was seen. The non-neoplastic breast showed mildly proliferative breast disease. In addition, there were multiple inflammatory axillary lymph nodes identified. Patient history included breast cancer.

The BRSTNOT05 library was constructed from breast tissue removed from a 58-year-old Caucasian female during a unilateral extended simple mastectomy. Pathology indicated all surgical margins, including the skin, nipple, and fascia were negative for tumor. Pathology for the matched tumor tissue indicated multicentric invasive grade 4 lobular carcinoma. The mass was identified in the upper outer quadrant of the left breast. Three separate nodules were also found in the lower outer quadrant of the left breast. No evidence of vascular invasion was found. All axillary lymph nodes were negative for tumor. Patient history included skin cancer, rheumatic heart disease, osteoarthritis, and tuberculosis.

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TABLE 2 (CON)

The BRSTNOT02 library was constructed from diseased breast tissue removed from a 55-year-old Caucasian female during a unilateral extended simple mastectomy. Pathology indicated proliferative fibrocystic changes characterized by apocrine metaplasia, sclerosing adenosis, cyst formation, and ductal hyperplasia without atypia. Pathology for the matched tumor tissue indicated an invasive grade 4 mammary adenocarcinoma of mixed lobular and ductal type, extensively involving all four quadrants of the left breast. The tumor was identified in the deep dermis near the lactiferous ducts with extracapsular extension. Surgical margins were negative. Seven mid and low and five high axillary lymph nodes were positive for tumor. Patient history included atrial tachycardia, blood in the stool, and a benign breast neoplasm.

The BRSTNOT07 library was constructed from diseased breast tissue removed from a 43-year-old Caucasian female during a unilateral extended simple mastectomy. Pathology indicated mildly proliferative fibrocystic changes with epithelial hyperplasia, papillomatosis, and duct ectasia. Pathology for the matched tumor tissue indicated invasive grade 4, nuclear grade 3 mammary adenocarcinoma with extensive comedo necrosis. Approximately 50 percent of the tumor was intraductal (comedo carcinoma). A microscopic focus of residual intraductal carcinoma was identified at the biopsy site in the lower inner quadrant of the right breast. The overlying skin, nipple, deep fascia, and axillary lymph nodes were negative for tumor.

The BRSTNOT04 library was constructed from breast tissue removed from a 62-year-old East Indian female during a unilateral extended simple mastectomy. Pathology indicated the surgical margins were negative for tumor. Pathology for the matched tumor tissue indicated an invasive grade 3 ductal carcinoma. A 0.4 cm focus of carcinoma in situ was identified in the lower outer quadrant of the breast. Multiple mid and low axillary lymph nodes contained micrometastasis, and estrogen/progesterone receptors were positive. Patient history included benign hypertension, hyperlipidemia, and hematuria.